Large Fab

1-Bevel end for welding FWD ONLY

D3272

A/R Aluminum Rod

3-Grind End Plate flush

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg

										DQA:	Date:	
NCR:	res / <b>No</b>				WORK ORDER NON-	COI	NFOR	MANCE / UP	DATE	QA Closed:	 Date:	,
					DISPOSITION				AGAINST DE			•
Work Orde					Rework	]		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo				Scrap	4		Machining	Small Fab	4	d. Eng. Coor.	Quality
NCR N	lo				Use-as-is Work Order Update			noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other
Root				Descri	ption of work order update	П	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
quip/Tooling												
Operator		1										
Material		İ										
Setup		1										
Other									•			
Process						3,	, ,	:				
Supplier						7. F3		:				
Training:												
Unapproved		<u> </u>										
						AUL	T CATE	GORY				
Landir 1	ng Gear			<u> </u>	General	_	۱		_	1	_	٦, ،,
ļ	Bending	_			Bend	-	Grain		<u> </u>	Ovalized	_	Pressure/Forced
	Centre No	ot Concei	ntric to (	<sup>D/S</sup>	BOM/Route	<u> </u>	Hardwa		<u> </u>	Over/Under	<del> </del>	Temperature/Cure
7.4	Cracks			ļ	Broken/Damaged	-	4	on Incomplete		Part Incorred	<u> </u>	Weld
	Crushed/	Crimped.		ļ	Burrs		1	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs			<u> </u>	Contamination		Mainte		<u> </u>	Part Moved		
	Heat Trea			<u> </u>	Countersink	1	Mislabe			Positioned V		Tour
-	Inspection	-	Tube	ļ	Cut Too Short	-	Misread	I	L_	Power Loss/	Surge	Other
	Ripples in			<u> </u>	Drill Holes	_	Offset					
	Torque W	aves in E	Extrusion	1	Drawing		Out of (	Calibration				

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish Folio

Chemical Conversion Coat per QSI005 4.1

0.00

\*140\*

HandFinish

Memo

0.00

Hand Finishing

130

5 # 12-11-15 Ac

										DQA:	Date:	
NCR: Y	es / No				<b>WORK ORDER NON</b>	-CO	NFORM	MANCE / UP	DATE			· ·
	·								·	QA Closed:	Date:	
Work Orde	ar.				DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	•
Part N	10.				Rework Scrap Use-as-is Work Order Update		Thern	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	┥	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root		<u> </u>		Descri	ption of work order update		Initial	Δς	tion	Sign &	<u> </u>	T
Cause	Date	Step	Qty		or Non-conformance	- 1	nief Eng		ription	Date	Verification	QC Inspector
Doc/Data		<u> </u>						·····				
quip/Tooling												
Operator						l						
Material												
ietup	·											
Other												
rocess												
Supplier												
raining												
Jnapproved												
						FAUL	T CATE	GORY				
Landin	ng Gear		-		General		<b>*</b> .					_
	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre No	ot Concer	ntric to (	)/S	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped.			Burrs		Instructi	ions Incomplete/l	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination		]Mainte	nance		Part Moved		
	Heat Trea	at			Countersink		Mislabe	led		Positioned \	Vrong	_
. [	Inspection	n Strip in	Tube		Cut Too Short		Misread			Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord				*974	131*							Page (
Item ID: Revision ID:	D350-591-3			Accept	*N900	040	100	ገ*	Setup	Start Stop	*N	S1*
Item Name: Start Date: Required Date: Reference:	10/30/12	Step, Long RH  Start Qty: 5.00  Req'd Qty: 5.00	*5* *5*		Cust Item l Customer:	D:				Stop	*N,	S7*
Approvals:	Process Pl QC:	an:	Date:			ate:			Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center II  150 *150* QC Quality Control	D	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Qty		Reject Number	Insp. Stamp
*180 *180* Large Fab Large Fab		2-Leave one r	eg Assembly as per Dv ivet out until welding is nd for welding	•				_5		\$		-Ae 1/21

4-Inspect for foreign object as per QSI 024

6-Grind End Plate flush

7-Install last rivet as per Dwg.

5-Weld Aft End Plate as per QSI 004 & Dwg D3272 A/RAluminum Rod 122358

Ae 12/11/19 1/2/11/20

Page 3

NCR: Y	es / No				WORK ORDER NON-	CON	NFORM	//ANCE / UPDATE					è
										QA Closed:	Da	te:	
Work Orde	r:				DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		•
Part N	0.				Rework Scrap Use-as-is Work Order Update		N Therm	Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite		4	Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
Root		T	T T	Descri	ption of work order update		nitial	Action		Sign &		-	
Cause	Date	Step	Qty		or Non-conformance	1	ief Eng	Description		Date	Verificatio	n	QC Inspector
occ/Data quip/Tooling Operator Material etup Other Process upplier Training													
	<del></del>					AUL	T CATE	ORY			· · ·		
Landin	Bending Centre No Cracks Crushed/o Cuffs Heat Trea Inspection Ripples in	Crimped. It In Strip in Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instructi Mainte Mislabel Misread Offset	on Incomplete ons Incomplete/Unclear nance led		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Torque W	aves in E	xtrusion	•	Drawing	1	Out of C	alibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Work Order ID 92431 Page 4 October-30-12 12:55:26 PM \*N900040100\* Accept Setup Start Item ID: D350-591-312 **Revision ID:** Heli-Access-Step, Long RH Item Name: Start Qty: 5.00 **Cust Item ID: Start Date:** 10/30/12 Req'd Qty: 5.00 Required Date: 11/23/12 **Customer:** Reference: Run Tooling: Process Plan: Date: Date: Approvals: Stop SPC (Y/N): Date: Date: QC: \_\_\_\_\_ Reject Insp. Tool # Plan Reject **Tool ID** Accept Sequence ID/ Operation Set Up/ Code **Qty Qty** Number Stamp Work Center ID Description **Run Hours** OC10- Inspect visual per QSI004- ground welds 0.00 190 \*190\* 0.00 QC Memo Quality Control OC5- Inspect part completeness to step on W/O 200 \*200\* 0.00 Memo **Quality Control** 0.00 Chemical Conversion Coat per QSI005 4.1 210 5 \$ EX 12 1100

0.00

Memo

HandFinish

Hand Finishing

									DQA:	Date:		
NCR: Yes	s / No			WORK OR	DER NON-CO	NFORN	MANCE / UF		QA Closed:	Date:	ě	
				DISPO	OSITION			AGAINST DE		-	•	
Work Order:					Rework		Skid-tube	Crosstube		Water Jet	Engineering	
Part No.	•				Scrap Use-as-is	1	Machining noforming	Small Fab Finishing		d. Eng. Coor. re/Packaging	Quality Other	
NCR No.		·		Work Ord	ler Update		Large Fab	Composite		Supplier		
Root				Description of work o	rder update	Initial	Ad	ction	Sign &			_
Cause	Date	Step	Qty	or Non-conform	ance C	hief Eng	Desc	cription	Date	Verification	QC Inspector	
Doc/Data												
Equip/Tooling	_											
Operator												
Material												
Setup												
Other												
Process												
Supplier	_											
Training												
Unapproved												_
						ILT CATE	GORY					_
Landing	_			Gener	al			<del></del>	1	<b>-</b>	I .	
	Bending			Bend	!	Grain		ļ	Ovalized		Pressure/Forced	

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short Drill Holes

Drawing

Finish

Folio

Broken/Damaged

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Over/Under tolerance

Temperature/Cure

Wrong Stock Pulled

Weld

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

Work Order ID October-30-12 12:55:2			*924	31*		Page 5
tèm ID: D350-3 Revision ID: tem Name: Heli-Ac Start Date: 10/30/ Required Date: 11/23/	591-312 ccess-Step, Long RH 12 Start Qty: 5.00	*5* *5*	Accept	*N900040  Cust Item ID: Customer:	100* Setup	Start *NS1* Stop *NS2*
	ess Plan:			Date:	Run	Start *NR1* Stop *NR2*
Sequence ID/ Work Center ID  20  *20  *20  Powdercoat  Powder Coating	1 1	214	Set Up/ Run Hours 0.00 0.00	Tool ID Tool #	Plan Accept Rejected Qty	
*230 *230* HandFinish Hand Finishing	Wing Walk as per dwg C <b>Memo</b>	2SI005 4.4 Batch 102	0.00		5 p	BK 12-11-21
* <b>240</b> * <b>240*</b> QC Quality Control	QC3- Inspect Part Finish  Memo		0.00 345	?	5	

								DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-C	ONFOR	MANCE / UPDATE	QA Closed:	Date:	
Work Orde	r:				DISPOSITION		AGAINS	T DEPARTMENT	/PROCESS	,
Part N				<del></del>	Rework Scrap	!	Skid-tube Crosstub Machining Small Fal	<del>  </del>	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	0				Use-as-is Work Order Update	Thern	noforming Finishin Large Fab Composite	~ <del> </del>	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initial	Action	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Description	Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator									·	
Material		1								
Material		1								
Setup										
<b>├</b>										

## **Landing Gear** General Bend Grain Ovalized Pressure/Forced Bending BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Weld Broken/Damaged Cracks Inspection Incomplete Part Incorrect Crushed/Crimped. Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Burrs Cuffs Maintenance Part Moved Contamination Positioned Wrong Heat Treat Countersink Mislabeled Inspection Strip in Tube Misread Power Loss/Surge Other Cut Too Short Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Folio Outside Dimensions

**FAULT CATEGORY** 

Wave/Twist in Tube

Supplier Training Unapproved

<b>Work Orde</b> October-30-12		*		*924	131*						Page 6
Item ID: Revision ID: Item Name:	D350-591-	312 -Step, Long RH		Accept	*N900	<b>040</b>	100	<b>)*</b> s	Setup Star	1 1	S1* S2*
Start Date: Required Date: Reference:	10/30/12 11/23/12	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item I Customer:	D:					
Approvals:	Process P	lan:	Date:	Tooling:	Da	ate:		R	Run Stai	1/1	R1*
•			_	SPC (Y/N):	Da	ate:			Sto	*N	R2*
Sequence ID/ Work Center II	)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250 *250* Packaging		Pick Kit  Memo		0.00				5			12/1/6
Packaging											
260		QC4- 100% Inspect kits	for completeness	0.00 (FAS)							,

\*260\*

Quality Control

Memo

0.00

0.00

270

\***27**0\*
Packaging

Packaging

Packaging

Identify and pack for shipping as per PPPD350-591-312 Location:

										DQA	۸:Dat	te: _	
NCR: Y	es / No				WORK ORDER NON-	COI	NFOR!	MANCE / UPI	DATE	0.4.61			,
						1				QA Closed	d: Dat	te:	
Work Orde	ar:				DISPOSITION				AGAINST DE	PARTMEN	T/PROCESS		,
WOIR Olde					Rework	7		Skid-tube	Crosstube	7	Water Jet		Engineering
Part N	lo.				Scrap	1	i	Machining	Small Fab	<b>⊣</b>	od. Eng. Coor.		Quality
					Use-as-is		Therm	noforming	Finishing	Rec/St	ore/Packaging		Other
NCR N	lo		·	<u>.                                    </u>	Work Order Update	]		Large Fab	Composite	]	Supplier		
Root		]		Descri	ption of work order update		nitial	Act	ion	Sign &			-
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	1	QC Inspector
Doc/Data													
Equip/Tooling													
Operator [			!										
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved							÷ (						
					F	AUL	T CATE	GORY					
Landin	ng Gear				General					_	,		
L	Bending				Bend		Grain			Ovalized		$\vdash$	Pressure/Forced
	Centre No	ot Concer	ntric to C	o/s	BOM/Route		Hardwa	re		Over/Und	er tolerance	$\vdash$	emperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incor	ect	\\	Veld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/L	Jnclear	Part Lost/I	Missing	ال	Wrong Stock Pulled
. [	Cuffs				Contamination		Mainte	nance		Part Move	d		
	Heat Trea	it			Countersink		Mislabe	led		Positioned	l Wrong		
	Inspection	n Strip in	Tube		Cut Too Short		Misread			Power Los	s/Surge		Other
Γ	Ripples in	Bend			Drill Holes		Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*924	131*							Page	7 .
Revision ID:	D350-591-3	312 Step, Long RH		Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	1 4	S1* S2*	
Start Date: Required Date: Reference:	10/30/12 11/23/12	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item I Customer:	D:							
Approvals:	Process Pi	lan:	Date:	Tooling: SPC (Y/N):		ate:			Run	Start Stop	*N *N	R1* R2*	
Sequence ID/ Work Center II 280	)	Operation Description QC21- Final Inspection	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accep Qty	t Re Qt	•	Reject Number	Insp. Stamp	L
*280* QC Quality Control		Memo		0.00						15/	<i>۱۱)</i> ۵	20 MF	-0

									DQA:	Date:	
NCR: Ye	es / No			WORK ORDER NON	N-CON	FORN	MANCE / UPI		QA Closed:	Date:	•
Work Order	•			DISPOSITION				AGAINST DEI	PARTMENT	/PROCESS	•
Part No	).			Rework Scrap Use-as-is Work Order Update		ا Therm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Description of work order update	I	itial	Act	ion	Sign &		
Cause	Date	Step	Qty	or Non-conformance	Chie	ef Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator					1						
Material											
Setup											
Other											
Process											
Supplier	7										
Training	1	·			1						
Unapproved											
	•	-			FAULT	CATE	GORY				

### **Landing Gear** General Pressure/Forced Grain Ovalized Bending Bend Temperature/Cure BOM/Route Hardware Over/Under tolerance Centre Not Concentric to O/S Weld Broken/Damaged Inspection Incomplete Part Incorrect Cracks Wrong Stock Pulled Instructions Incomplete/Unclear Part Lost/Missing Crushed/Crimped. Burrs Part Moved Cuffs Contamination Maintenance Positioned Wrong Heat Treat Countersink Mislabeled Power Loss/Surge Other Misread Inspection Strip in Tube Cut Too Short Drill Holes Offset Ripples in Bend Torque Waves in Extrusion Drawing Out of Calibration Out of Sequence Turning Sequence Finish Wave/Twist in Tube Folio Outside Dimensions

Page 1

Work Order ID:

92431

Parent Item:

D350-591-312

Parent Item Name:

Heli-Access-Step, Long RH

**Start Date:** 10/30/12

Required Date: 11/23/12

Start Qty: 5.00

Required Qty: 5.00

Comments:

IPP Rev:A04.03.22New issue KJ/RF

IPP Rev:B 07-06-09 Added D3572-1 JLM

IPP Rev:C 08-04-02 ECN1163 DD verified by:EC

IPP Rev:D 08-04-08 ECN1164

DD verified by:eC

IPP Rev:D fixe route seq in bom DD

	10.04.28 verified b	y:EC											
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3272-1		Manufactured	No			110	Each	15.0000	1	5	4	/2	10.3
Step									-		- NC-	12.	10.0
				Location WA 91 91		Loc Oty 15 10 5	<u>Lo</u>	oc Code					•
D3067-1		Manufactured	No			110	Each	211.0000	1	5	11	12 · // ·	,7
End Plate										· vomes. · · · · · · · · ·	/[_]	12.11.	10
	•			<b>Location</b>		Loc Qty	Lo	oc Code					
				WA .		207							
				786	508	4				***			
				838		1							
				901		5			-				
				901		17							
				903		60							
				903		60 60							
				904	180								
				WA016		4							
				675		2							
				682	214	1							

79607

										DQA:	Date	:
NCR: Y	es / No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE	QA Closed:	 Date	*
		<u>'</u>		·	DISPOSITION				AGAINST DE			,
Work Orde	r:					1		Skid-tube	Crosstube	1	Water let	T racing a wing
Part N	0				Rework Scrap		Machining Small Fab			Į.	Water Jet d. Eng. Coor.	Engineering Quality Other
NCR N	0				Use-as-is Work Order Update	]		Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update		Initial Action			Sign &		
Cause	Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
equip/Tooling												
Operator												
Material					·							
Setup												
Other						ł						
Process												
Supplier												
Training												
Unapproved				**								
		•			F	AUL	T CATE	GORY				
Landin	g Gear				General					•	<u></u>	_
	Bending						Grain			Ovalized	_	Pressure/Forced
Centre Not Concentric to O/S BOM/Route						Hardwa	re		Over/Under	tolerance	Temperature/Cure	
Cracks Broken/Damaged					Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
Crushed/Crimped. Burrs					Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved		
Heat Treat Countersink					Mislabeled				Positioned V	Vrong	_	
		Cut Too Short	Misread				Power Loss/	Surge	Other			
Inspection Strip in Tube Cut Too Short Misread  Offset								·	=	_		

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio October-30-12 12:55:25 PM

Work Order ID: 92431 **Start Date: 10/30/12** Required Date: 11/23/12 Parent Item: D350-591-312 Start Qty: 5.00 Required Qty: 5.00 Heli-Access-Step, Long RH Parent Item Name: 110 Each 264.0000 2 10 D3219-1 No Manufactured Plate Loc Oty Loc Code Location WA 246 2 88888 89966 108 108 89967 28 90704 18 WA016 12 73410 6 77674 Le 12/11/19 180 Each 169.0000 10 D3066-1 No Manufactured Spacer Loc Qty Loc Code Location WA 169 20 90211 90212 60 29 90346 60 90347 Ae 12/11/19 180 Each 1,498.0000 80 MS20600-AD4W4 No Purchased Rivets Location Loc Qty Loc Code 321 18 121652 18 ST311 1000 1000 123021 ST321 480 121011 121340 39 432 121444

										DQA:	Date	
NCR: Y	'es / No				WORK ORDER NON-	COI	NFORI	MANCE / UP	DATE	QA Closed:	Date	
Work Orde					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	· · · · · · · · · · · · · · · · · · ·
	o				Rework Scrap Use-as-is		1	Skid-tube Machining Moforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo				Work Order Update	]		Large Fab	Composite		Supplier	
Root				Descri	ption of work order update	i	nitial		tion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material [												
Setup												
Other [												
Process						l						
Supplier												
Training		İ				ŀ						
Unapproved		<u> </u>				<u></u>						
						AUL	T CATE	GORY		· · · · · · · · · · · · · · · · · · ·		
Landin	g Gear				General		,		<del></del>	7	r	
1	Bending			<u> </u>	Bend		Grain			Ovalized	_	Pressure/Forced
	Centre No	ot Concer	ntric to (	D/S	BOM/Route	$\vdash$	Hardwa	_		Over/Under	<del> </del>	Temperature/Cure
Ţ	Cracks				Broken/Damaged		Inspecti	on Incomplete	·.	Part Incorred	<u>-</u>	Weld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/I	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte			Part Moved		
	Heat Trea	it			Countersink		Mislabe	led		Positioned V		
	Inspection	n Strip in	Tube		Cut Too Short		Misread	l		Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes	Offset						
Γ	Torque W	aves in E	xtrusior	, [	Drawing		Out of 0	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

October-30-12 12:55:25 PM

Work Order ID: Parent Item:	92431 D350-591-312							Star	rt Date: 10	)/30/12		Required Date:	11/23/12
Parent Item Name:	Heli-Access-Step, I	Long RH							rt Qty: 5.0			Required Qty:	
D3065-041 Step Leg Assembly Hi		Manufactured	No			180	Each	56.0000	1		5	Ae 1	2/11/19
				Location	<u>l</u>	Loc Oty		Loc Code					
				WA		56							
					66149	(							
					79336	1							
					90011	15				R			
					90012	40				(5)		17	
D3067-1		Manufactured	No			180	Each	211.0000	1		5		-11-20
End Plate		Manufactured							<b></b>			1212	-11-20
and I fate				Location	ı	Loc Oty		Loc Code					·
				WA	<u> </u>	207							
				****	78608	207							.•
					83855	1			_				
					90177	5							
					90178	17			_				
					90335	60			_				
					90336	60							
					90486	60				5			
				WA016		4							
•					67582	2							•
					68214	1			_				
					79607	1							
ANE-ESA		Purchased	No			250	Each	136.0000	2		10		
Bolt		Turchasea								9			
				Location	l	Loc Qty		Loc Code				0	12/11/2
Sm/ 0	~~			FG	•	10		<del></del>					20
Sm>	> <i>T</i>				122800	10			_				
	,				1,44000				_				
				ST353	100050	126				2335	~2		
	•				123352	126					1		

										DQA:	Date:	•
NCR: Yes	/ No				WORK ORDER NON-C	CON	IFORN	MANCE / UPD	ATE	QA Closed:	Date	
					DISPOSITION				AGAINST DE			•
Work Order: _					DISPOSITION	_			AGAINST DE	, ANTIVIERT,	<b>-</b>	
Part No.					Rework Scrap Use-as-is		ľ	Skid-tube Machining Moforming	Crosstube Small Fab Finishing	-	Water Jet d. Eng. Coor re/Packaging	Engineering Quality Other
NCR No					Work Order Update	]		Large Fab	Composite	]		
Root				Descri	ption of work order update	Initial Action			on	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chi	ef Eng	Descri	ption	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator	<del></del>											
Material	İ											
Setup												
Other							Ì					
Process												
Supplier			<u>.</u>									
Training												
Unapproved	1					<u> </u>	CATE	CORV		<u> </u>	<u> </u>	
						AULI	CATE	JUKY				
Landing Ge					<b>General</b> Bend	$\Box$	Grain			Ovalized	Г	Pressure/Forced
<u> </u>	ending	t Cancan	stric to C	\/s		$\vdash$	Grain Hardwai	ro	· -	Over/Under	tolerance	Temperature/Cure
<b>⊢</b>		ntre Not Concentric to O/S BOM/Route  Broken/Damaged						on Incomplete	<u> </u>	Part Incorre	<del></del>	Weld
<b>├</b>	Cracks Broken/Damaged Crushed/Crimped Burrs					_	•	ions Incomplete/U	nclear	Part Lost/Mi	_	Wrong Stock Pulled
	Cuffs Contamination					-			-	Part Moved	55/1/6	
1 10	Heat Treat Countersink					Maintenance Mislabeled				Positioned V	Vrong	
	eat Treat				It Olintersink							
<b>⊢</b> ⊣			Tube	<del> </del>	4	<b>—</b>						Other
In	eat Treat rspection ipples in	Strip in	Tube		Cut Too Short Drill Holes		Misread Offset			Power Loss/		Other

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish Folio

# **Picklist Print**

October-30-12 12:55:25 PM

Page 4

Work Order ID:

92431

Parent Item:

D350-591-312

Parent Item Name:

Heli-Access-Step, Long RH

Manufactured

No

No

No

No

Location ST470 ~

Location ST410

Location

Location

Location

ST338

ST338

ST351

89155

90002

89974

116289 119097

1069059

**Start Date:** 10/30/12

Required Date: 11/23/12

Start Qty: 5.00

Required Qty: 5.00

Mounting Lug

D3235-1

Manufactured

Support Assembly

D3278-041

AN960JD416

NAS1149D0463J Purchased

SMS

AN960JD516 Washer

Washer

NAS1149D0563J

Purchased

Smb ST

No Purchased

250

206

100 106

> 28 28

29

21

Loc Qty

Loc Qty

Loc Qty

Loc Oty

250

250

250

Each

Each

Each

Each

206.0000

28.0000

10

Loc Code

Loc Code

29.0000

Loc Code

2.0000

Loc Code

2 2 250 Each 26.0000

Loc Qty 26 26 123021

Loc Code

										DQA:	Date	:
NCR:	Yes / No	•			WORK ORDER NON-	COI	NFORM	MANCE / UPI	DATE	QA Closed:	Date	•
Work Orde					DISPOSITION				AGAINST DE		/PROCESS	,
	No				Work Order Update			Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite			Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update		Initial	Act	ion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												
l andi:					General	AUL	T CATE	JORT				
Condi	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend BoM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes						Instruct Mainte Mislabe Misreac Offset	on Incomplete ions Incomplete/U nance led	Jnclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Torque W	aves in E	xtrusio	า [	Drawing	1	Out of C	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

October-30-12 12:55:26 PM

	0/12	D. 4 10/20/12	5,						92431	Work Order ID:
red Date: 11/23/12	•	rt Date: 10/30/12							D350-591-312	Parent Item:
ired Qty: 5.00	Required C	art Qty: 5.00	Sta					Long RH	Heli-Access-Step, L	Parent Item Name:
In R	2530 10	925	13.0000	Each	250		No	Manufactured		D2618 Bushing
,	•		Loc Code		Loc Oty	Location				_ /
					13	ST013				Sm
					2	76130			•	
					3	84646				
					8	90104				
30 X	12287 70	9225	359.0000	Each	250		No	Manufactured		<b>–D2230-3</b> Lug
•	•		Loc Code		Loc Qty	Location				
					4	FG				
	•				4	89045				SMS
					355	ST469			/	
	<u> </u>				60	89082				
					19	89782				
					200	89950				
	****				76	90514				1
13 12/11/8	6 23	1,2)	391.2039	f	250		No	Manufactured		D2856-400 Abrasion Strip
78	V		Loc Code		Loc Qty	Location				
					391.2039	ST408				
		<u> </u>			0.6696	63735			27	Sm
					0.3149	68076			1	
•					8.46	71164				
		,								
	10200	- Mara								
	132 4	8732							•	
	19352	8935			391.2039 0.6696 0.3149	ST408 63735 68076			27	Sm

NCR: Y	es / No				WORK ORDER NON-	CO	NFOR	MANCE / UPI	DATE			*
					_					QA Closed:	Date:	
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	,
					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part N	0.				Scrap		ı	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is			noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	0				Work Order Update	┚╽		Large Fab	Composite	J	Supplier	
Root				Descri	ption of work order update	T	nitial	Act	ion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material	_											
Setup												
Other												
Process												
Supplier	_											
Training	_											
Unapproved												
Landin	- Coor				General	AUL	T CATE	GORY				
Landin	Bending				Bend		Grain			Ovalized		Pressure/Forced
-	<b>⊣</b> ັ	nt Concer	ntric to C	1/5	4	H	Hardwa	re	-	Over/Under	tolerance	Temperature/Cure
-	Centre Not Concentric to O/S  BOM/Route  Broken/Damaged					Н		on Incomplete		Part Incorred		Weld
<u> </u>	Cracks Broken/Damaged Crushed/Crimped Burrs					-	•	ions Incomplete/l	Inclear	Part Lost/Mi	<del></del>	Wrong Stock Pulled
+	Cuffs Contamination						Mainte		-	Part Moved		]
	Heat Treat Countersink					Н	Mislabe		<u> </u>	Positioned V		
Inspection Strip in Tube Cut Too Short					<b>├</b> ──			Power Loss/		Other		
Ripples in Bend Drill Holes						Offset		<u> </u>	J	~ <u>L</u>	· · · · · · · · · · · · · · · · · · ·	
<u> </u>	<b>→</b> ``		xtrusion	<u> </u>	Drawing	П		Calibration				
	Torque Waves in Extrusion Drawing Turning Sequence Finish						Out of Sequence					

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

October-30-12 12:55:26 PM

Work Order ID:

92431

Parent Item:

D350-591-312

Parent Item Name:

Heli-Access-Step, Long RH

MS21042L3 Nut . -

Purchased

Purchased

No

No

**Start Date:** 10/30/12

Required Date: 11/23/12

Start Qty: 5.00

2,771.0000

Required Qty: 5.00

10

75

72 CM3

Location	<u>1</u>	Loc Oty		Loc Code
316		627		
	122452	627		
ST300		225		
	117885	32		
	119017	55		
	119075	138		
ST314		1542		
	123265	1542		
ST317		377		
	122141	377		
		250	Each	816.0000

250

Each

123525 JB 12/11/23

Sms st

<b>Location</b>		Loc Qty	Loc Code
FG		20	
	122808	20	
ST513		796	
	120187	19	
	120770	12	
	121652	81	
	122063	1	
	122416	181	
	122808	2	
	122993	500	

NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE  OA Closed: Date:												+
										QA Closed:	Date:	
Work Orde	· ·				DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	•
WOIR Olde					Rework	7		Skid-tube	Crosstube	٦	Water Jet	Engineering
Part N	0.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1	Therm	noforming	Finishing	Rec/Stor	re/Packaging	Other
NCR N	0				Work Order Update	]		Large Fab	Composite		Supplier	
Root				Descri	ption of work order update	1	itial	Act	ion	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chi	ef Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data			] ]									
Equip/Tooling						1						
Operator	_											
Material	_											
Setup												
Other	_					'						
Process	_											
Supplier												
Training												
Unapproved		L	ll		Ε.	<u>Ι</u> Διιτ	CATE	GORY				<u> </u>
Landin	g Gear				General	7.00.	C/ L/ C					
Γ	Bending				Bend	$\Box$	Grain		Γ	Ovalized		Pressure/Forced
		ot Concer	ntric to C	o/s	BOM/Route	$\vdash$	Hardwa	re	<u> </u>	Over/Under	tolerance	Temperature/Cure
<u> </u>	Centre Not Concentric to O/S BOM/Route Cracks Broken/Damaged						nspecti	on incomplete		Part Incorred	ct	Weld
	Crushed/Crimped. Burrs					$\Box$	nstruct	ions Incomplete/l	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
Γ	Cuffs Contamination						Mainte	nance		Part Moved		-
Heat Treat Countersink							Mislabe	led		Positioned V	Vrong	_
Inspection Strip in Tube Cut Too Short						Misread				Power Loss/	Surge	Other
Ripples in Bend Drill Holes							Offset		_			
Torque Waves in Extrusion Drawing							Out of C	Calibration				
Turning Sequence Finish							Out of Sequence					

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist October-30-	<b>Print</b> -12 12:55:26 PM		The state of the s									Page 7
Work Order Parent Item: Parent Item	D350-591-312	o, Long RH							Date: 10/30/12  Qty: 5.00		equired Date: 1	
MS21042U5 Nut		Purchased	No			250	Each	1,137.0000		10	78	
			<u>I</u>	Location <b></b>		Loc Qty		Loc Code			•	
	5ms 5T			314	121652	57 57 1000				- -		
			S	ST300	122452 108827	1000 80 4			12245	- -		
					116105 116548 119109	1 43 20				- - -		
MS21042L4 Nut		Purchased	No	•	2937	250 250	Each	5,885.0000	<u>8</u>	- 40	JB	
			<u>i</u>	Location		Loc Oty		Loc Code				
	Sha Sy		3	314	122452	358 358				-		
	)		S	ST300		27				_		
					119017	20			PRODUCTION OF THE PROPERTY OF	_		
					121444	7				_		
			S	ST314		5500				_		
					123021	3000			123021	<u>-</u>		
•					123248	900 1600			12302	L		
AN960JD10 Washer	NAS1149D0363.	Purchased	No		123355	250	Each	0.0000	1223	20 78	JB"	JB12411/2

SW Sy

										DQA:	Date	·	
NCR: Y	'es / No				WORK ORDER NON-O	CON	FORN	/ANCE / UPD	ATE	QA Closed:	Date	t	
Work Orde	ır.				DISPOSITION				AGAINST DE			٥	
Part N	lo				Rework Scrap Use-as-is Work Order Update		N Therm	Skid-tube  Machining  noforming  Large Fab		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root				Descri	ption of work order update	In	itial	Actio	on	Sign &			
Cause	Date	Step	Qty	(	or Non-conformance	Chie	f Eng	Descri	ption	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved						AllT	CATEC	CORY					
Landin	a Coor				General F	AULI	CATE	JUKY					
Landing Gear  Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend					Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes	H		on Incomplete ions Incomplete/Ui nance Ied	nclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
i	I Ripples in	Bend		1	IDrill Holes	I IC	)ffset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish



DESIGN		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHEC	<i></i>	APPROVED	DRAWING NO.	REV. B
۷	E	A	D3272 SHI	EET 1 OF 3
DATE			TITLE	SCALE
 07.05.18			STEP ASSEMBLY, HI LONG	NTS
Α		04.03.01	NEW ISSUE	
В		07.05.18	D3272-1 WAS D2622-120	

RELEASED 0706 04.

QTY	QTY		
-041	-042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

## **GENERAL NOTES:**

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1 POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

ENGINEERANG (VE SUBJECT TO AMENDMAN



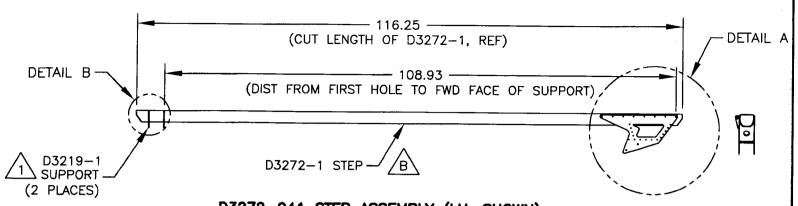
DRAWING NO. D3272

SHEET

2 OF 3

DART

RT AEROSPACE I



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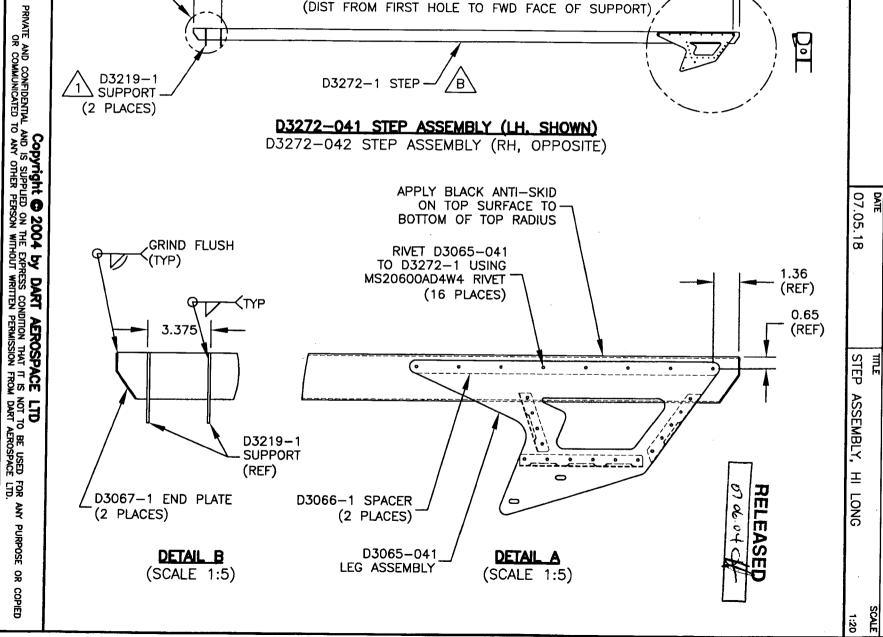
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PURPOSE

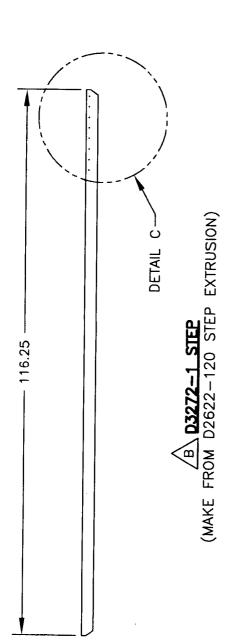
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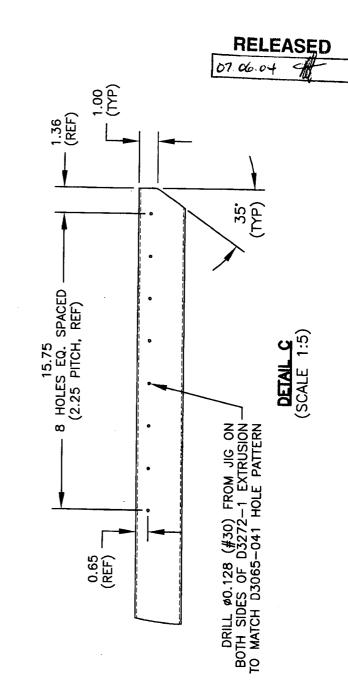
D3272-041 STEP ASSEMBLY (LH. SHOWN) D3272-042 STEP ASSEMBLY (RH, OPPOSITE)





DESIGN	DRAWN BY	DART AEROSPACE HAWKESBUPY, ONTARIO, CAI	
CHECKED	APPROVED	DRAWING NO. D3272	REV. B
DATE		TITLE	SCALE
07.05.18		STEP ASSEMBLY, HI LONG	1:20





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